

THE UNIVERSITY OF CHICAGO

In a method for detecting the modes of a dynamic system with a large number of modes that each have a set $\alpha(t)$ of characteristic system parameters, a time series of at least one system variable $x(t)$ is subjected to modeling, for example switch segmentation, so that in each time segment of a predetermined minimum length a predetermined prediction model, for example a neural network, for a system mode is detected for each system variable $x(t)$, whereby modeling of the time series is followed by drift segmentation in which, in each time segment in which there is transition of the system from a first system mode to a second system mode, a series of mixed prediction models is detected produced by linear, paired superimposition of the prediction models of the two system modes.